The stars with which the comet was compared were taken from the Astronomical Society's Catalogue, and computed for each day by the logs. A, B, C, D. The differences in right ascension and declination were computed by the formulæ given by Dr. Pearson in his *Practical Astronomy*, Vol. I. art. " Annular Micrometer."

The long interval which occurs between the observations of September 19 and October 5, was caused by the extreme brilliancy of the moon overpowering the feeble light of the comet during the greater part of that time.

Day.	Sidereal Time.	Apparent Right Ascen. of Comet.	Apparent Declination of Comet.	Star of Comparison.	No. of Obs.
	h m s	h m s	° ′ ″		
1844. Sept. 18	0 34 32	0 50 22·62	− 11 35 3·30	φ^1 Ceti	3
19	0 31 21	0 52 19·49	11 5 57·15	φ^1 Ceti	3
Oct. 5	2 23 41	1 14 13·22	4 8 49·33	13 Ceti	1
7	22 9 7	1 16 6·47	3 22 44·83	34 Ceti	2
10	2 27 53	1 18 38·01	2 17 39·71	38 Ceti	4
11	0 18 35	1 19 26·27	1 55 50·87	38 Ceti	3
13	1 21 18	1 20 54·88	1 14 54·70	42 Ceti	1
14	1 42 12	1 21 35·37	− 0 55 12·14	42 Ceti	3
18	0 28 30	1 24 11·63	+ 0 21 18·06	26 Ceti	2

IX. Elliptical Elements of De Vico's Comet, with an Ephemeris. By J. R. Hind, Esq.

" These elliptical elements of the new comet discovered at Rome on August 22, have been computed from an observation made at Cambridge on September 15, one at Greenwich on October 3, and a third at Mr. Bishop's Observatory, in the Regent's Park, on October 22. The last position was obtained by comparison of the comet with a star in Professor Santini's Catalogue, employing a wire micrometer. The observations were corrected for aberration and parallax, and the resulting elements are as follows :—

Epoch, 1844, Sept. 15·55896, Mean Time at Greenwich.

Mean Anomaly = 2° 22′ 25″·53.

$$\pi \dots 342° \ 32′ \ 40″·1 \ \Big\} \text{ Apparent equinox,}$$
$$\Omega \dots 63 \ 52 \ 24·1 \ \Big\} \qquad \text{October 0.}$$
$$i \dots 2 \ 54 \ 27·14$$
$$\varphi = \sin^{-1}e \dots 37 \ 59 \ 59·65$$

Log. semi-axis major .... 0·4893706
Log. mean daily sidereal motion in seconds 2·8159507
Period of sidereal revolution .... 1980 days.
Motion direct.

" An ephemeris has been computed from the above elements,

which may serve for the speedy reduction of the observations during the next six weeks, and likewise assist in finding the comet.

Berlin Mean Noon	True Right Ascension of Comet.	True Declination of Comet.	Log. Dist. from Earth.	Time for Aberration.
1844.	h m s	° ′ ″		m s
Nov. 8	1 34 4·5	+ 5 47 49	9·66758	−3 51·17
10	1 35 15·5	6 13 13	9·68354	3 59·83
12	1 36 30·0	6 37 57	9·69946	4 8·78
14	1 37 47·9	7 2 3	9·71532	4 18·03
16	1 39 9·3	7 25 34	9·73110	4 27·58
18	1 40 34·4	7 48 33	9·74680	4 37·43
20	1 42 3·4	8 11 1	9·76240	4 47·58
22	1 43 36·1	8 33 1	9·77788	4 58·02
24	1 45 12·5	8 54 35	9·79323	5 8·74
26	1 46 52·6	9 15 45	9·80845	5 19·75
28	1 48 36·5	9 36 33	9·82354	5 31·05
30	1 50 23·9	9 56 59	9·83848	5 42·64
Dec. 2	1 52 15·0	10 17 6	9·85328	5 54·52
4	1 54 9·5	10 36 54	9·86793	6 6·68
6	1 56 7·5	10 56 25	9·88242	6 19·12
8	1 58 9·2	11 15 41	9·89675	6 31·84
10	2 0 14·3	11 34 42	9·91092	6 44·84
12	2 2 22·6	11 53 28	9·92493	6 58·11
14	2 4 34·4	12 12 1	9·93877	7 11·65
16	2 6 49·4	12 30 23	9·95243	7 25·44
18	2 9 7·6	12 48 32	9·96591	7 39·48
20	2 11 28·7	+13 6 28	9·97922	−7 53·78

" The following constants are adapted to this ellipse, and may be used for further calculation,

$$x = [0·4813600] \sin (E + 76° 3′ 34″) − 1·810161$$
$$y = [0·3543699] \sin (E + 339 39 41) + 0·483894$$
$$z = [0·0292555] \sin (E + 331 32 24) + 0·313834$$

where E is the comet's eccentric anomaly.

" It is to be remarked, that this comet is in some parts of the orbit liable to considerable perturbations from *Jupiter's* influence."

J. R. HIND.

Mr. Bishop's Observatory, Regent's Park,
November 7, 1844.

X. Observations of De Vico's Comet, made at Ashurst by R. Snow, Esq.

The observations extend from September 24 to October 7. The